

Factors affecting environmental ethics behavior of undergraduate students

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ABSTRACT

The research aimed to investigate the variables affecting undergraduate students' environmental ethical conduct as well as the variables influencing the environmental ethical behavior of undergraduate students of various genders and academic years. In the topic of environmental education, year 1-4 pupils made up the research sample. A total of 231 people from Mahasarakham University's Faculty of Environment and Resource Studies freely provided information. A survey was used as the research method to assess the variables influencing undergraduate students' ethical conduct in the environment. Frequency, percentage, mean, standard deviation, and one-way ANOVA testing of hypotheses are the statistics used for the study. The factors affecting the undergraduate students' overall environmental ethical behavior were found to be at the highest level, equal to 4.04. After examining each item, it was found that serving the public and keeping promises was equal to 4.86, followed by upholding universal ideals ($\bar{x}=4.22$), a factor that involves avoiding punishment. fear of criminal and disciplinary penalty ($\bar{x}=4.11$), conformity factor ($\bar{x}=4.02$), reward-seeking factor ($\bar{x}=3.97$), social responsibility compliance factor ($\bar{x}=3.74$), and personal qualities ($\bar{x}=3.41$) were the factors that had the smallest effect on the student's environmental ethical behavior, in that order. At the 05 levels, several factors influenced learners of different genders' environmental ethical behavior, and various factors affected the environmental.

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1. INTRODUCTION

World changes and most of the world's environmental problems from the past to the present, it is known that it comes mainly from human actions. Many scientists and social scientists agree that humanity has entered an era called the Anthropocene. That humans see themselves as the center and use resources for their own survival [1]. There are various impacts that return to humans at the community level, social level, and global level [2]. Environmental impacts have occurred in all areas, both soil pollution is a global problem that poses a serious threat to human health and ecosystems [3]. Water pollution is facing serious challenges, in industrial development, agricultural production and urban life results in environmental degradation and pollution affecting the water source [4]. Air pollution problems, this not only affects climate change, but also the impact on public and individual health due to increased morbidity and mortality [5]. Population growth and increased urban expansion are expected to cause more severe disasters and more damage [6], [7]. Natural disasters occur more than 300 times per year around the world, and it affects millions of people and costs billions [8] which environmental problems occur. It comes from a lack of human environmental ethics, which

from the first era until the present environmental ethics not only considers the meaning of values. But it also considers the true value [9]. One's perception, management, and use of natural resources, which are all cultural in nature. Can be influenced by environmental ethics It is a branch of philosophy that explores the moral relationship between humans and nature [10]. It is very necessary to create human resources with good environmental ethics. To create sustainability for the environment in the future.

Department of Environmental Education, Faculty of Environment and Resource Studies, Mahasarakham University. Create a curriculum that aims to produce graduates with knowledge and skills in studying, analyzing, and solving environmental problems. And most importantly, they must be people with high environmental ethics, to be a good example of creating a sustainable environment, having a conscience is the standard and good social behavior [11], [12]. Adapting environmental ethics as a moral foundation makes humans aware of their interactions with the environment. Humans think, behave, and treat nature ethically [13], [14]. Many international organizations have adopted documents declaring an ethical obligation to protect the environment in all their professional activities. At the national level, professional associations should include and develop this obligation in their codes of conduct [15]. This is a matter of great importance and necessity for the development of curricula and teaching processes to create good and efficient environmental human resources.

From the explanation, the researcher developed an ethical behavior survey for undergraduate students, at the Department of Environmental Studies, Faculty of Environment and Resource Studies, Mahasarakham University. To explore factors affecting ethical behavior of students. To find out, this research aims to study the level of factors affecting environmental ethics behavior of undergraduate students. And to study and compare factors affecting environmental ethics behavior of undergraduate students of students of different genders, and different year levels. To use the various factors discovered as guidelines for developing the process of creating quality environmental education graduates for society and continue to create a good and sustainable environment.

2. RESEARCH METHOD

2.1. Research conceptual framework

Several steps are involved in a study of the variables affecting bachelor's degree students' environmental ethical behavior: elements that influence environmental ethics, which are comprised of seven elements, specifically: Personal characteristics: gender, age, occupation, place of living, avoiding punishment out of fear of being disciplined in the world of crime (selfish, nervous of injury, afraid of going to hell, afraid of killing), receiving rewards in the form of money, and seeking other people's acceptance (selfish members of the family who like to be praised and backed, adhere to social norms (laws, rules, religious customs, and duties), follow the agreement (be proud to be embarrassed), support international ideals (humanitarian), and teach students of different both gender and academic year levels who do factors that affect the environmental ethics behavior of bachelor's degree students as shown in Figure1.

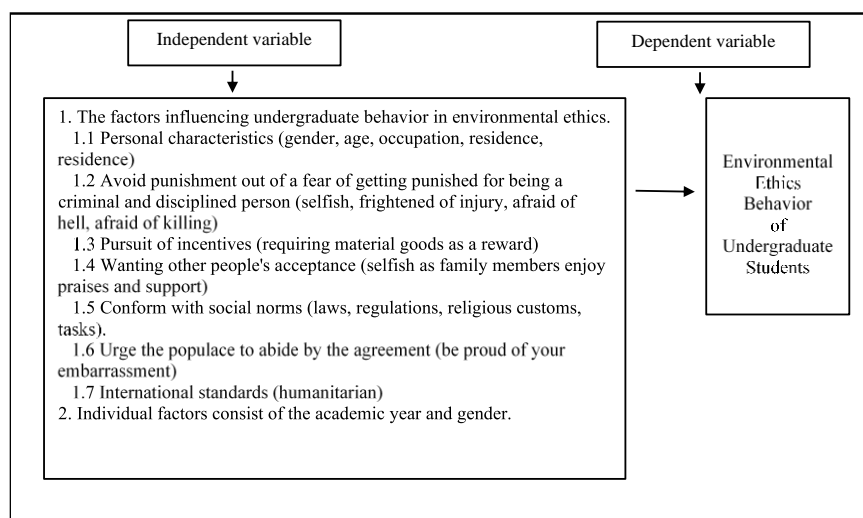


Figure 1. Conceptual framework for research

2.2. Population and sample groups

The population used were 329 undergraduate students from Environmental Education Program, Faculty of Environment and Resources Studies, Mahasarakham University. The sample used in the study were 231 undergraduate students, years 1 to 4. They were obtained from voluntary selection.

2.3. Research variables

The research variables in this study are: personal characteristic that affecting environmental ethical behavior, gender differences and academic year level. Factors affecting environmental ethical behavior consist of 7 factors: avoiding punishment, fear of disciplinary and criminal punishment (selfishness, fear of pain, fear of going to hell, fear of being killed), seeking rewards (wanting material things, money as rewards), following the approval of others (being selfish, for relatives, wanting praise, acceptance, support), following social rules (laws, rules, religious practices, doing duties), doing for the public, keeping promises (pride, shame), and adhering to ideals. Gender differences of the sample students were divided into male and female by the researcher. The difference in academic year level of students, where the participating students are from 1st year to 4th year students. The following variables include the environmental ethic behavior of bachelor's degree students, Environmental Education Program, Faculty of Environment and Resources Studies, Mahasarakham University.

2.4. Data collection and analysis

We made an appointment, and clarified details about the measurement form and channels for accessing the environmental ethical behavior measurement form to students. We prepare a questionnaire to measure factors affecting environmental ethical behavior consisting of seven factors: personal characteristics (gender, age, career, domicile, domicile); dodging the punishment afraid of being disciplined in discipline and criminal (selfish, afraid of hurt, afraid of going to hell, afraid of killing); reward pursuit factor (need objects of money as a reward); following the approval of others (selfish for relatives like to praise, accept support); follow the duties of social rules (laws, rules, religious practices, perform duties); do for the people to follow the contract (proud to be embarrassed); international ideals (humanitarian). This study uses a model to measure factors affecting environmental ethical behavior, to collect data via the online system, using a data collection period of 1 month with a sample of 231 undergraduate students by voluntarily participating in the online survey of factors affecting environmental ethical behavior through Google Form. The data analyze the factors affecting environmental ethical behavior by using statistical methods to test the hypothesis. The data is analyzed to determine the factors that influence environmental ethical behavior using statistical methods to test the hypothesis.

3. RESULTS

3.1. Level analysis of factors affecting environmental ethical behavior

The results of the level analysis of factors affecting environmental ethical behavior of undergraduate students are classified by factor found that the factor that affects environmental ethical behavior the most is the factor of doing for the public and fulfilling the promise was equal to 4.86. Followed by the universal ideal adherence factor ($\bar{x}=4.22$), penalty avoidance factor fear of disciplinary and criminal penalties ($\bar{x}=4.11$), factors of conforming to the approval of others ($\bar{x}=4.02$), reward pursuit factor ($\bar{x}=3.97$), factors of duty, and rules of society ($\bar{x}=3.74$), and the factor that least affected the student's environmental ethical behavior was the personal attribute factor ($\bar{x}=3.41$), respectively; as shown in Table 1 and Figure 2.

Table 1. Analysis of factors affecting the environmental ethical, classified by a factor (n=5)

No.	Factors affecting environmental ethics behavior (N=5)	\bar{x}	SD
1	Personal characteristics (gender, age, career, domicile, domicile)	3.41	0.31
2	Dodging the punishment afraid of being disciplined in discipline and criminal (selfish, afraid of hurt, afraid of going to hell, afraid of killing)	4.11	0.20
3	Reward pursuit (need objects of money as a reward)	3.97	0.25
4	Following the approval of others (selfish for relatives like to praise, accept support)	4.02	0.10
5	Follow the duties of social rules (laws, rules, religious practices, perform duties)	3.74	0.27
6	Do for the people to follow the contract (proud to be embarrassed)	4.86	0.04
7	International ideals (humanitarian)	4.22	0.18
	Average	4.04	0.16

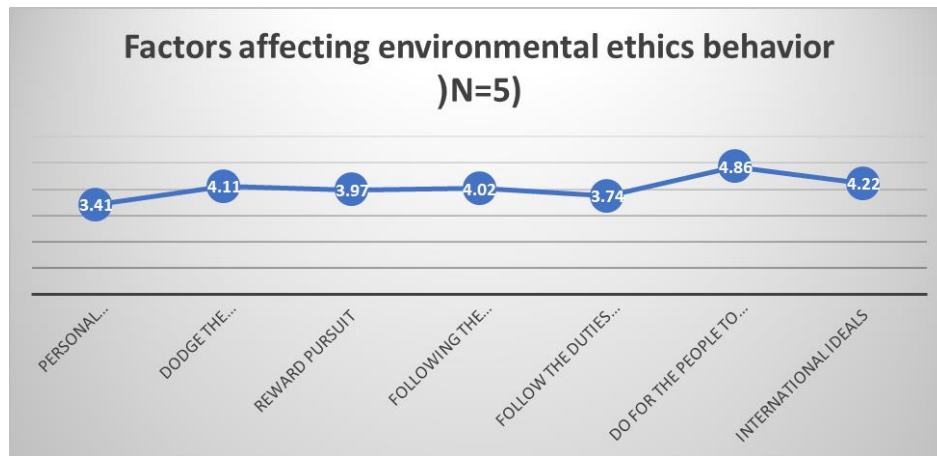


Figure 2. The level of factors affecting environmental ethical behavior of undergraduate students

3.2. Relationship analysis of factors affecting environmental ethical behavior

The results of the relationship analysis of factors affecting environmental ethical behavior of undergraduate students found that personal characteristics (gender, age, career, domicile, domicile), dodge the punishment afraid of being disciplined in discipline and criminal (selfish, afraid of hurt, afraid of going to hell, afraid of killing), reward pursuit factor (need objects of money as a reward), following the approval of others (selfish; for relatives like to praise, accept support), follow the duties of social rules (laws, rules, religious practices, perform duties), do for the people to follow the contract (proud to be embarrassed), international ideals (humanitarian). There was a correlation (B) of 0.129 as shown in Table 2.

Table 2. Laddered multiple regression analysis of factors affecting environmental ethical behavior

	Variable	B	SEB	β	t	Sig
1.	Personal characteristics (gender, age, career, domicile, domicile)	0.129	.000	0.256	223130670.0	.000*
2.	Dodging the punishment afraid of being disciplined in discipline and criminal (selfish, afraid of hurt, afraid of going to hell, afraid of killing)	0.129	.000	0.266	176557670.0	.000*
3.	Reward pursuit (need objects of money as a reward)	0.129	.000	0.226	198566850.0	.000*
4.	Following the approval of others (selfish for relatives like to praise, accept support)	0.129	.000	0.214	213082912.2	.000*
5.	Follow the duties of social rules (laws, rules, religious practices, perform duties)	0.129	.000	0.238	199575213.7	.000*
6.	Do for the people to follow the contract (proud to be embarrassed)	0.129	.000	0.259	100869985.2	.000*
7.	International ideals (humanitarian)	0.129	.000	0.242	198468015.1	.000*

Note: *p < 0.05

3.3. Comparison of factors affecting environmental ethical behavior by gender and different year level

A comparison of the factors influencing the environmental ethical behavior of undergraduate students, classified by gender and year level, was conducted. The analysis revealed that while there were differences among students based on gender and year level, the overall levels of factors affecting their environmental ethical behavior did not vary significantly. These findings are detailed in Table 3.

Table 3. Analysis of factors affecting environmental ethical behavior using one-way ANOVA

Initial variable	Initial variable	SS	df	MS	F	p
Gender (N=2)	Factors affecting environmental ethical behavior	0.230	1	0.248	2.238	0.313
Year level (N=4)	of bachelor students	5.454	3	1.862	23.183	0.146

4. DISCUSSION

4.1. Personal characteristics factor (gender, age, career, domicile, domicile)

There was a positive correlation with the factors affecting the student's environmental ethical behavior. Most of the students saw that personal factors affect environmental ethics behavior. This may come

from the social and family backgrounds that have been instilled in the individual, which determine the behavior behind. Allport [16] explained that traits are the foundation of a person's nervous system. It is the structure of the nervous system, which acts as a controlled force or vocalists encourage individuals to show behavior that helps build confidence, make other people feel welcome, and make the family warm. If a person lacks social competence traits, he or she will behave in the wrong way. There are different feelings in different situations. Characteristics are roles that directly influence behavior. It has a special feature that acts to control the behavior of all forms of individuals. Eysenck [17] have been explain why individuals differ in personality and behavior. There are four important personality traits: introversion behavior, extroversion behavior, stability behavior, and neuroticism tendency. It depends on the amount of activity in the nervous system of an individual. This activity motivates the individual to develop in a certain way. Finally, personality is derived from an individual's genetically inherited nervous system.

From the experience that each person has already received, this is consistent with the research of Sinha and Mishra [18]. The study found that traits and values have a significant impact on people's ethical reasoning. The personal value system is seen as a relatively persistent cognitive framework, that determines and influences the general nature of an individual's behavior. Holtbrügge *et al.* [19] found that control culture had a greater effect on ethical attitudes than on organizational conditions (e.g., organizational culture). In addition, a moderate effect of control culture was found on the relationship between personality traits (e.g. conscientiousness and morality), external expressions, and attitudes toward corporate misconduct. We have implications for human resource management and further theoretical development.

4.2. Dodging the punishment afraid of being disciplined in discipline and criminal (selfish, afraid of hurt, afraid of going to hell, afraid of killing)

There was a positive relationship with environmental ethics of undergraduate students. The responses of the students differed according to the situations they encountered. It is consistent with the concept of Kohlberg [20] with the research on principles of obeying orders and avoiding punishment. The person making the decision is at this stage. Judges' actions as good-bad or right-wrong. By considering the results of actions that will affect themselves, avoiding physical punishment for fear of pain obeying the orders of those who have physical authority over. Previous research [21] reported that individuals vary considerably in their avoidance of harmful effects; which is susceptibility to punishment. The basis of this variance is quite difficult to understand. They may be driven by differences in aversion sensitivity. Research by Rawlings [22] found that tax knowledge had a positive effect on real estate investors' levels of tax compliance, likewise, fines/penalties have a positive effect on the level of tax compliance, while perceived opportunities for tax evasion have negative effects.

4.3. Reward pursuit (need objects of money as a reward)

There was a positive relationship with the student's environmental ethics. Most of the students answered the questionnaire at level 4, i.e. high level, but there were still some students who were in the minority who answered the questionnaire at level 3 and 2, which were at moderate and low level. It depends on what the situation. The students who responded to the questionnaire at levels 2 and 3 viewed that the expression of environmental ethics was something that should be done. However, some students who answered at level 4 thought that such actions had to be rewarded. As well as the concept of Kohlberg [20], reward-seeking factor (needing objects, things, money as a reward) will occur in children in the age range of 7-10 years. At this stage, the child will gradually emphasize the importance of applying the principles of earning rewards and praise. Promising rewards motivates children to do good rather than scolding or threatening punishment, for example, a child will help his parents to work to be praised. In conclusion, this level of ethics emphasizes the need for praise and rewards rather than punishment. Consistent with the research [23]. The results of the study found that when seeking rewards humans weigh the value of potential rewards against the effort it takes to achieve them. Although previous research has generally given the idea that this process is deliberate, human beings can perform a fundamental integration of reward value and the need for effort without conscious awareness. Consistent with the research results of Grabowski *et al.* [24] that high appreciation of hard work and the belief that it will lead to success, aversion to wasting time and self-reliance There was a positive relationship between hard work for external rewards and a desire for positive opinions about oneself. as well as obtaining approval and acceptance from others.

4.4. Following the approval of others (selfish for relatives like to praise, accept support)

There was a positive relationship with the students' environmental ethics. Most of the students answered at a high level (Level 4), but some students answered at the highest level (Level 5). Most of the students saw that the actions that were accepted or approved by friends or relatives had a great effect on the expression of environmental ethical behavior. Based on the concept of Kohlberg and Ryncaz [20], a person's intelligence is highly correlated with moral development. But in fact, according to this theory, intelligence

alone is not enough to make a person's ethics develop well. There must be a stimulus or condition from the outside as well and family is an important source of learning. Parents' upbringing allows a person to learn things, affecting a person's attitude and behavior, which may be acquired through upbringing or imitation. A friend is a person who has a great influence on one's attitude and behavior [25]. Individuals are more attached to friends than other ages and have a desire to be accepted by their peers, so they tend to act according to their peers. Friends' groups have an influence on persuading people to comply with social rules, such as persuading each other to participate in anti-drug sports activities or doing things that are against the rules of society, such as raising quarrels among groups from different institutions [26]. The research is in line with the concept of the imitative behavior theory of Bandura [27] that imitation behavior arises from learning and imitating the behavior of real-life subjects, meaning subjects that can be observed directly and in close interaction, especially with parents, family members.

4.5. Follow the duties of social rules (laws, rules, religious practices, perform duties)

There was a positive correlation with factors affecting environmental ethical behavior. It was found that the students answered the questions at a high level and a moderate level of similar numbers, which may be concluded that most students saw that behavior that is environmentally ethical may not be required by society or the law, but can express what he sees as the right thing, although sometimes it may not be his duty. It was consistent with the concept of Kohlberg and Ryncaz [20], law and order ("Law and order" Orientation) will follow the principles of social duty by strictly following the rules of society learn to be a unit of society. performs social duties to maintain social rules, found in 13-16 years of age, this stage shows the behavior to fulfill the duties of society, in which people know their roles and duties as a unit of that society, therefore, there is a duty to follow the rules that society has given or expected by explaining the reasons.

At this level of ethics, it is assumed that society will live with orderliness, there must be laws and regulations. Good people or people with correct behavior are people who obey rules and regulations or laws. Everyone should respect the law to maintain order and order in society. It is in line with previous research; the research found that personal and social norms were positively correlated with environmental protection behaviors [28]. Environmental protection willingness was also found to mediate the relationship between personal and social norms and environmental protection behavior. In addition, norms shape how decisions are made in social situations and play a key role in maintaining cooperative relationships and coordinating joint actions [29]. However, following norms often impose limits on behavior, and demands to reduce selfishness or suppress personal goals.

4.6. Do for the people to follow the contract (proud to be embarrassed)

There was a positive correlation with factors affecting environmental ethical behavior. Most of the students' answered questions at a high level (Level 4) and at the highest level (Level 5), which shows that students were able to demonstrate ethical behavior based on pride for the most part and are ashamed to show behavior that lacks environmental ethics, able to judge the expression of behavior by oneself. There is a collective awareness of individual interests. In line with the concept of Kohlberg and Ryncaz [20] in social contract orientation, or the principle of the fulfillment of commitments (social contract orientation), individuals have reasons to choose to act based on the interests of the masses. Do not violate the rights of others able to control oneself, respect the decision to act on one's own not be controlled by other people, behave in accordance with their own values and standards of society, and consider the rules, can be changed based on the benefit of the public. It can be found in late adolescence and adulthood, showing behavior to meet social standards, seeking common interests over personal interests in which a person sees the importance of many people and, therefore does not make himself contrary to the rights of others. Consistent with the previous research results [30] has studied research about theory-based approach to factors affecting ethical consumption. The results showed that the ethical obligations of individuality and altruism were positively correlated with consumer attitudes toward ethical consumption. They also found that ethical commitment and altruism had a positive influence on ethical consumption intentions. In line with previous research [31], that idealism, relativity, environmental ethics, moral obligations, and willingness to use green products have a positive influence on green consumption. In addition, environmental ethics and moral obligations somewhat influence the willingness to use green products.

4.7. International ideals (humanitarian)

There was a positive correlation with factors affecting environmental ethical behavior. It was found that most students answered the questions at the highest level (Level 4) and the highest level (Level 5), which shows that undergraduate students adhering to international ideals as an important factor in the expression of environmental ethical behavior and can express themselves in a coercive situation. As a result, the surrounding environment is conducive to environmental ethical expression, which is consistent with the

concept of Kohlberg and Ryncaz [20], that ethics at this stage are principles based on universal ideals that show universality beyond the rules of one's society. Moral flexibility for the goal of the great ideal has its own core principles. Most of the decision-makers at this stage are middle-aged adults. It is consistent with the research results [32], [33], that the existence of a code of conduct, along with senior management support and a selfless ethical climate within a public relations firm, strongly influenced the ethical conduct of public relations officials.

4.8. The comparison of factors affecting the environmental ethical behavior by gender and year level different

It was found that students with different genders and year levels were different, had factors affecting environmental ethical behavior there were no differences. This may be the result of students living in the same environment, that is, being in an environment that is conducive to the same environmental ethics. In an atmosphere conducive to good environmental ethics, it may result in students of different genders and grade levels having similar ethical and environmental behaviors. In line with the concept of Weerawattananon [34], that the development of environmental ethics is a continuing process of education starting from families, schools, religious institutions, and mass media such as radio, television, and newspapers. These media institutions act as promoters or convey patterns of good behavior to members of society. It is consistent with the research results [35], that for employees with different genders, there was no difference in ethical perception. It also consistent with the previous research [36], [37], that undergraduate students of different genders, there were no different levels of environmental ethics. It was found that undergraduate students of different genders. There were no different levels of environmental ethics [38].

5. CONCLUSION

The factors that have the most common characteristics of a normal student environment are factors of doing things for the public, fulfilling promises. Next is the factor of adhering to international ideals, this means acceptance of a society that sees and agrees together; factor of avoiding punishment, fear of being subjected to disciplinary and criminal punishment; the factor of following the approval of others reward-seeking factor; factors of following the duties and rules of society. The factors that have the least effect on students' environmental ethical behavior are personal characteristics factors, respectively. Different genders affect the overall environmental ethical behaviors of students. This may result from the relatively different numbers of male and female students. At the same time, when comparing the differences in students' year levels, it was found that; It did not affect the overall environmental ethics behaviors of students. The results of this study have indicated guidelines for developing the teaching and learning process and the process for inserting environmental ethics into students to be clearer and more relevant. The researcher has guidelines for using the environmental education process that adds to the group process—creating a common ideology, using a variety of based learning processes to add parts that have been found to have a greater effect on students' environmental ethics behaviors. As well as using the learning process through activities and workshops, to give students equal access to changing environmental ethics behavior for the better.

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